

ACT Math Practice Set 3

1. What is the degree measure of the acute angle formed by the hands of a 12-hour clock that reads exactly 1 o'clock?

A. 15° B. 30°
C. 45° D. 60°
E. 72°

2. What is the probability that a number selected at random from the set $\{2, 3, 7, 12, 15, 22, 72, 108\}$ will be divisible by both 2 and 3?

F. $\frac{1}{4}$ G. $\frac{3}{8}$
H. $\frac{3}{5}$ J. $\frac{5}{8}$
K. $\frac{7}{8}$

3. A circle has a circumference of 16π feet. What is the radius of the circle, in feet?

A. $\sqrt{8}$ B. 4
C. 8 D. 16
E. 32

4. A rectangle with a perimeter of 30 centimeters is twice as long as it is wide. What is the area of the rectangle in square centimeters?

F. 15 G. 50
H. 200 J. $3\sqrt{15}$
K. $6\sqrt{15}$

5. In the standard (x,y) coordinate plane, what are the coordinates of the midpoint of a line segment whose endpoints are $(-3,0)$ and $(7,4)$?

A. $(2,2)$ B. $(2,4)$
C. $(5,2)$ D. $(5,4)$
E. $(5,5)$

6. Points A , B , C , and D are on a line such that B is between A and C , and C is between B and D . The distance from A to B is 6 units. The distance from B to C is twice the distance from A to B , and the distance from C to D is twice the distance from B to C . What is the distance, in units, from the midpoint of BC to the midpoint of CD ?

F. 18 G. 14
H. 12 J. 9
K. 6

7. Which of the following statements *must* be true whenever n , a , b , and c are positive integers such that $n < a$, $c > a$, and $b > c$?

A. $a < n$ B. $b - n > a - n$
C. $b < n$ D. $n + b = a + c$
E. $2n > a + b$

8. The distribution of Jamal's high school grades by percentage of course credits is given in the circle graph below. What is Jamal's grade point average if each A is worth 4 points; each B, 3 points; and each C, 2 points?



F. 3.0 G. 3.4
H. 3.6 J. 3.7
K. Cannot be determined from the given information

9. What is the difference between 1.8 and 1.08? (Note: A bar indicates a digit pattern that is repeated.)

A. 0.71
B. 0.71
C. 0.719
D. 0.72
E. 0.72

10. Which of the following equations represents the linear relationship between time, t , and velocity, v , shown in the table below?

t	0	1	2
v	120	152	184

- [F.](#) $v = 32t$
[G.](#) $v = 32t + 120$
[H.](#) $v = 120t$
[J.](#) $v = 120t + 32$
[K.](#) $v = 120t + 120$

11. An industrial cleaner is manufactured using only the 3 secret ingredients A, B, and C, which are mixed in the ratio of 2:3:5, respectively, by weight. How many pounds of secret ingredient B are in a 42-pound (net weight) bucket of this cleaner?

- [A.](#) 4.2
[B.](#) 12.6
[C.](#) 14.0
[D.](#) 18.0
[E.](#) 21.0

12. If $n = 8$ and $16 \cdot 2m = 4n^{-8}$, then $m = ?$

- [F.](#) -4
[G.](#) -2
[H.](#) 0
[J.](#) 1
[K.](#) 8

Name				
Date		Period		

	A	B	C	D	E		A	B	C	D	E
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Test Version: A ☐ B ☐ C ☐ D ☐

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